Sunrise Sunset App

5th May 2025

CONTEXT

Jumpseller is an e-commerce platform where people can create their online stores and connect with several sales channels, inside an all-in-one platform with everything people need to build their business online.

On this take home assignment, you will develop a small application using **Ruby** in the backend and **React** in the frontend with a server and frontend components.

Provide the code on a Git repository with a README file with instructions on how to run the project. We expect to receive this code in 3 days.

Time spent should be less than 6hs. Make your own best decisions for non-specified requirements.

SERVER SIDE

1. Set up a Ruby project with a server-side framework like Ruby on Rails or Sinatra.
2. Implement an API endpoint that receives parameters for location (example: Lisbon, Berlin) , start date, and end date.
3. Develop a service class that interacts with the Sunset Sunrise API to:
    a. Perform HTTP requests to retrieve historical sunrise and sunset data for the given location and date range.
    b. Extract relevant details such as sunrise time, sunset time, and golden hour.
4. Define a data model for storing the historical information.
5. Optimize API requests: Implement backend logic to check if data already exists in the database:

    a. If the requested data exists, return it directly.

    b. If the requested data does not exist, fetch it from the Sunrise-Sunset API, store it, and return the response.

6. Ensure error handling: Handle invalid locations, Handle special cases like Arctic/Antarctic where the sun doesn't rise/set in some months, API failures, and missing parameters.

FRONTEND

1. Design a user interface with an input field for the location name (example: Lisbon), start date, and end date.
2. Implement a client-side function that sends a request to the server API when a button is clicked, passing the entered location, start date, and end date as parameters.
3. Handle the API response and display the historical information (sunrise time, sunrise time, golden hour) on the frontend with a chart library and on table format.

DELIVERABLES

1. Screencast of the Application, demoing the main features. Use your voice to better explain yourself.
2. Repository URL or Zip, containing all the code.